1967 ANNUAL INDEX

Textile Research Journal

Volume XXXVII

MONTH	PAGES	MONTH	PAGES
January	1–60	July	539–620
February	61–146	August	621–710
March	147–232	September	711–816
April	233–338	October	817–914
May	339–440	November	915–1004
June	441–538	December	1005–1098

L = Letter to the Editor

AUTHOR AND TITLE INDEX

Aldrich, de V. The Application of Radioisotopes in a Study of Fiber Breakage During Recombing on the Rectilinear System 454

Algie, J. E. The Measurement of Regain of Wool by Electrical Capacity Type Moisture Meters. III: The Dielectric Properties of Scoured Wool 224

Anderson, C. R. The Variability of Wool Tops in Treatments with Oxidative Shrink-Resist Reagents (*McPhee*) 582

Angelo, Paul J. Spinning of Cotton Yarns from Cross-Linked and Untreated Fibers on the Woolen System and Their Performance in Winter-Weight Fabrics (*Valko*) 600

Arthur, Jett C., Jr. Effects of Light on the ESR Spectra of Dyed Cottons (*Baugh, Hinojosa, Mares, Hoffman*) 942

Asquith, R. S. The Synthesis of Lanthionine Sulphone (*Dominguez*)—**L** 229

Audivert, R. Drafting Force in the Front Zone of a Double Apron Drafting System (*Villaronga, Coscollá*) 1

Avny, Yair Grafting of Preformed Polystyrene onto Cotton Cellulose (*Schwenker*) 817

Back, Ernst The Effect of Auto Cross-Linking Reaction on the Thermal Softening of Cellulose (*Htun, Jackson, Johanson*)—**L** 432

Backer, Stanley The Dynamics of Roller Drafting. Part I: Drafting Force Measurement (*Plonsker*) 673

Backer, S. The Problems of Textile Information Retrieval (*Valko, Liang*) 880

Baird, K. Bending Stiffness of Looped Fabrics (*Stuart*)—**L** . . 619

Bajaj, P. Improved Abrasion Resistance Through Internal Lubrication (*Chipalkatti, Sattur, Husain*) 242

Balasubramanian, E. Temperature Effects in Loose Wool and Fabric Felting Using Blankenburg's Method (*Sherman, McMahon*)—**L** 534

Bandyopadhyay, S. B. The Effect of Oil and Water on Jute Fiber Friction (*Bose*) 697

Barker, Robert H. The Mechanism of Formation and Hydrolysis of Cross Links in Cellulose (*Vail*)—**L** 1077

Baugh, Peter J. Effects of Light on the ESR Spectra of Dyed Cottons (*Hinojosa, Mares, Hoffman, Arthur*) 942

Bell, J. P. Dye Concentration Profiles Within Single Nylon Filaments (*Carter, Felty*) 512

Bendak, A. Chemical Investigation of the Sulfur-Containing Amino Acids and Sulfur Content of Persulfate-Oxidized Wool (*Kantouch*) 483

The Action of Periodic Acid and its Salts on Wool. Part I: Periodidate Consumption (*Kantouch*) 772

Benerito, Ruth R. Effect of Esterification Method on Fabric Properties of Cotton Esters of Long-Chain Monobasic Acids (*Berni, McKelvey*)—**L** 706

Improved Preparation of Diethylaminoethyl-Cotton Fabrics (*Soignet*)—**L** 1001

Physicochemical Study of the Cotton Cellulose–Dimethylolpropyleneurea Reaction (*Gonzales, Ziifle, Berni*) 726

Berni, Ralph J. Effect of Esterification Method on Fabric Properties of Cotton Esters of Long-Chain Monobasic Acids (*McKelvey, Benerito*)—**L** 706

Physicochemical Study of the Cotton Cellulose–Dimethylolpropyleneurea Reaction (*Gonzales, Ziifle, Benerito*) 726

Bhaduri, S. N. Quality of Cotton Yarns Spun from Fibers on Cylinder and Doffer of a Revolving Flat Card (*Ghosh*)—**L** 813

Twist Flow in Ring Spinning (*Subramanian, Salhotra*) 195

Bille, Heinz E. Substituted Propylene Urea in Conventional, Wet, and Moist Curing (*Petersen*) 264

Billica, H. R. Studies of Soiling and Detergency. Part III: Detergency Experiments with Particulate Carbon Soils (*Grindstaff, Patterson*) 564

Blakey, P. R. Studies on Magra (Indian) Wool. Part I: The Physical and Chemical Properties (*Earland, Jalihal*) 683

Blanchard, Eugene J. Stiffness, An Important Factor in the Abrasion Resistance of Durable-Press Cottons (*Harper, Lofton, Gautreaux*) 233

Blankenburg, G. Influence of Tensides on the Mechanical and Absorption Properties of Wool Fibers (*Zahn, Stein*)—**L** . . 701

Bogdan, J. F. The Prediction of Cotton Yarn Strengths—**L** . . 536

Bohmfalk, B. M. A Mathematical Model of Pilling Mechanisms (*Brand*) 467

Borsten, H. Effect of Different Steaming Treatments on the Physical and Mechanical Properties of Cotton Fabrics, Yarns, and Fibers (*Isings, Spit*)—**L** 1080

The Relation of Intermicellar Bonding and Some Mechanical Properties of Swollen Cotton Fibers (*de Boer*) 390

Bose, B. K. The Effect of Oil and Water on Jute Fiber Friction (*Bandyopadhyay*) 697

Boucher, R. M. G. Sonic and Ultrasonic Irradiation of Cotton Fibers. Part II: Airborne Irradiation (*Staples*) 635

Sonic and Ultrasonic Irradiation of Cotton Fibers. Part I: Irradiation in Liquid Phase (*Staples*) 621

Brand, R. H. A Mathematical Model of Pilling Mechanisms (*Bohmfalk*) 467

Brannan, Mary Ann F. Effect of Ionic Substituents on Wrinkle Recovery Angles of a Cross-Linked Cotton (*Rowland*)—**L** . . 230

Introduction of Ester Cross Links into Cotton Cellulose by a Rapid Curing Process (*Rowland, Welch, Gallagher*) 933

The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Roberts, Hoiness, Wade, Janssen, Pittman*) 1020

Breckenridge, J. R. Effect of Wet Insulation in Vapor Barrier Cold-Weather Boots—**L** 809

Brooks, J. H. The Effect of Machine Action on Soil Removal from Wool During Laundering (*McPhee*) 371

Browne, C. L. A Cross-Linking Agent for Cellulose—**L** 1081

Bry, Roy E. *O,O*-diethyl Phosphorothioate with Phenylglyoxylonitrile (Bay 77488) as a Mothproofer of Woolen Fabrics (*Lang*) 915

Bryant, George M. Fibers From Crystalline Hydrocarbons . . . 552

Bullock, A. L. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Cirino, Roberts, Hoiness, Wade, Brannan, Janssen, Pittman*) . . . 1020

Bullock, Joel B. Cross-Linked Silicone Films in Textile Finishing. II: Wash-Wear Durable-Press Cottons at Low Levels of Cellulose Cross-Linking (*Welch, Margavio*) 324

Burgeni, A. A. Capillary Sorption Equilibria in Fiber Masses (*Kapur*) 356

Burkitt, F. H. New Catalysts for Resin Finishing (*Ryan, Tattersal, Taylor*) 311

Buvel, Harry Methods of Mounting Single Fibers for Tensile Loading (*Way, Lyons*)—**L** 146

Carter, W. C. Dye Concentration Profiles Within Single Nylon Filaments (*Bell, Felty*) 512

Cegarra, J. Considerations on the Kinetics of the Dyeing Process of Polyester Fibers with Dispersed Dyes (*Puente*) 343

Chance, Leon H. Methylol Derivatives of Halo Cyanoacetamides and Their Evaluation on Cotton Fabrics (*Leonard, Drake*) 339
Chipalkatti, V. B. Improved Abrasion Resistance Through Internal Lubrication (*Sattur, Husain, Bajaj*) 242
Cirino, V. O. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Roberts, Hoiness, Wade, Brannan, Janssen, Pittman*) 1020
Coe, Arthur B. Liquid Rise Between Filaments in a V-Configuration (*Miller, Ramachandran*) 919
Conner, J. C. Novel Mineral Dyeing Process for Improved Weather Resistance of Cotton (*Danna, Cooper, Reeves*) 94
Cook, Gerhard A. Combustibility Tests on Several Flame-Resistant Fabrics in Compressed Air, Oxygen-Enriched Air, and Pure Oxygen (*Meierer, Shields*) 591
Cooney, J. D. The Effect of Solvents on Some Properties of Cotton Cellulose (*Wiles, Gingras*) 476
Cooper, A. S., Jr. Novel Mineral Dyeing Process for Improved Weather Resistance of Cotton (*Conner, Danna, Reeves*) 94
Poly-Set Process for Producing Durable-Press Cotton Goods (*Reeves, Hamalainen, St. Mard*) 76
Coscollá, R. Drafting Force in the Front Zone of a Double Apron Draft System (*Audivert, Villaronga*) 1
Crewther, W. G. The Formation of Various Cross Linkages in Wool and Their Effect on the Supercontraction Properties of the Fibers (*Dowling, Inglis, Maclaren*) 736
Cusick, Gordon E. Carpet Performance. Part I: The Tetrapod Walker Test (*Laughlin*) 608

Dalen, H. The Timing of Moisture Regain Changes and Fabric Deformation in Wrinkle Recovery Tests (*Køpke*)—L 535
Danna, G. S. Novel Mineral Dyeing Process for Improved Weather Resistance of Cotton (*Conner, Cooper, Reeves*) 94
Daruwalla, E. H. Photochemistry of Cotton and Chemically Modified Cotton. Part I: Behavior During Exposure to Carbon-Arc and Solar Radiations (*D'Silva, Mehta*) 147
Photochemistry of Cotton and Chemically Modified Cotton. Part II: Photosensitization in Presence of Vat Dyes (*D'Silva, Tandon*) 160
de Boer, J. J. The Relation of Intermicellar Bonding and Some Mechanical Properties of Swollen Cotton Fibers (*Borsten*) 390
DeLuca, L. B. Effect of Carding Rate and Cylinder Speed of Fiber Hooks and Spinning Performance for an Irrigated Acala Cotton (*Simpson, Fiori*) 504
Dobozy, O. K. Chromatography of Azo Dyes Capable of Forming H-Bonds (*Lőrinc, Péter*)—L 60
Dominguez, J. G. The Synthesis of Lanthionine Sulphone (*Asquith*)—L 229
Donaldson, Darrel J. Effects of Bases on the Pyrolysis of Cotton Cellulose (*Mack*) 1063
Dowling, L. M. The Formation of Various Cross Linkages in Wool and Their Effect on the Supercontraction Properties of the Fibers (*Crewther, Inglis, Maclaren*) 736
Drake, George L., Jr. Methylol Derivatives of Halo Cyanoacetamides and Their Evaluation on Cotton Fabrics (*Chance, Leonard*) 339
D'Silva, A. P. Photochemistry of Cotton and Chemically Modified Cotton. Part I: Behavior During Exposure to Carbon-Arc and Solar Radiations (*Daruwalla, Mehta*) 147
Photochemistry of Cotton and Chemically Modified Cotton. Part II: Photosensitization in Presence of Vat Dyes (*Daruwalla, Tandon*) 160
Duby, R. G. Dimensional Stability of High-Bulk Acrylic Knit Fabrics (*Hurley*) 667
Duckett, Kermit E. X-Ray and Optical Orientation Measurements on Single Cotton Fibers (*Tripp*) 517
Dweltz, N. E. Degree of Cross-Linking and Fiber, Yarn and Fabric Properties (*Radhakrishnan*) 129

Earland, C. Studies on Magra (Indian) Wool. Part I: The Physical and Chemical Properties (*Blakey, Jalihal*) 688
The "Free" Sulfur Content of Proteins (*Raven*)—L 1004
The Synthesis of Lanthionine Sulphone—L 908
Egle, Clifton J., Jr. The Effects of Various Combinations of Physical and Chemical Treatments on the Physical Properties of Cotton Yarns and Bundles (*Grant, Orr*) 574
Evans, Bruce A. A Fundamental Study of the Acid Dyeing Equilibria of Aminized Cotton (*Porter*) 643

Feldtman, H. D. Treatment of Wool with Polyolefins (*McPhee, Pratt*) 46
Felty, D. C. Dye Concentration Profiles Within Single Nylon Filaments (*Bell, Carter*) 512
Feughelman, M. The Longitudinal Mechanical Properties of Wool Fibers and Their Relationship to The Low-Sulfur Keratin Fraction (*Reis*)—L 334
The Relationship Between Some Mechanical Properties of Single Wool Fibers and Relative Humidity (*Robinson*) 441
The Mechanical Properties of Wool Fibers in Water at Temperatures Above 100°C (*Mitchell*) 660
The Tensile Behavior of Wool Fibers in Liquid Nitrogen (*Robinson*)—L 705
Finkner, Morris D. Some Physical Properties of Weathered Wool (*Lee*) 211
Fiori, L. A. Effect of Carding Rate and Cylinder Speed on Fiber Hooks and Spinning Performance for an Irrigated Acala Cotton (*Simpson, DeLuca*) 504
Graphical Conversion of Digital Fibrograph into Suter-Webb Array Data (*Louis*)—L 815
Fitzgerald, W. E. Mixed-Stream Spinning of Bicomponent Fibers (*Knudsen*) 447
Flege, Raymond K. Weaving Processes—Effects of Non-Preemptive Priority and Operator Interference on Output (*Hines, Nass*) 798
Fonseca, George F. Moisture Transfer Through Impermeable Foam Insulations 1072
Foster, W. H. A Fiber-Reactive Photochromic Dye for Nylon (*Kazan*) 376
Freeland, G. N. Wool Insectproofing with Surface-Active Agents. Part I: Anionics and Anionic-Cationic Complexes (*Williams*) 408
Freeston, W. Denney Jr. Mechanics of Elastic Performance of Textile Materials. Part XVIII: Stress-Strain Response of Fabrics Under Two-Dimensional Loading (*Platt, Schoppee*) 948
Frick, J. G., Jr. Lightfastness of Dyes on Wash-Wear Cotton (*Kullman, Reinhardt, Reid*) 894

Gagliardi, D. D. Influence of Swelling and Monosubstitution on the Strength of Cross-Linked Cotton (*Wehner*) 118
Gallagher, Dudley M. Introduction of Ester Cross Links into Cotton Cellulose by a Rapid Curing Process (*Rowland, Welch, Brannan*) 933
Gautreaux, Gloria A. Stiffness, An Important Factor in the Abrasion Performance of Durable-Press Cottons (*Harper, Blanchard, Lofton*) 233
Getchell, Nelson F. Wet-Fixation Process for Improved Durable-Press Cotton (*Hollies*) 70
Ghosh, G. C. Quality of Cotton Yarns Spun from Fibers on Cylinder and Doffer of a Revolving Flat Card (*Bhaduri*)—L 813
Gingras, B. A. The Effects of Solvents on Some Properties of Cotton Cellulose (*Wiles, Cooney*) 476
Goldthwait, Charles F. Observations on Properties of Partially Formylated Cottons; and Formyl Groups as Adsorption Sites for Direct Dyes (*Kirby*) 136
Gonzales, E. J. Physicochemical Study of the Cotton Cellulose–Dimethylolpropyleneurea Reaction (*Ziifle, Berni, Benerito*) 726
Grant, James N. The Effects of Various Combinations of Physical and Chemical Treatments on the Physical Properties of Cotton Yarns and Bundles (*Egle, Orr*) 574
Griffith, June C. The Modification of Wool by Certain Organic Sorbates (*Haly*) 183
The Modification of Wool Fabric by Certain Organic Sorbates. Part I: Factors Relating to Their Equilibrium Adsorption and the Subsequent Water Uptake of the Fabric 173
Grindstaff, T. H. Studies of Soiling and Detergency, Part III: Detergency Experiments with Particulate Carbon Soils (*Patterson, Billica*) 564
Gupta, Mrs. K. The Free Sulfur of Proteins; response to letter by *Earland and Raven*—L 1004
Guthrie, John D. Estimation of the Length of the Oxymethylene Bridges Introduced into Cotton Cellulose by Formaldehyde and by Methylenedisulfuric Acid 40

Hagan, Patricia M. Wet-Fixation Durable-Press Process—Reactions with Cellulose (*O'Brien, Nakajima, Roth, White*) 288
Haly, A. R. Differential Thermal Analysis of Wool—The Phase-Transition Endotherm Under Various Conditions (*Snaith*) 898
Evaluation of the Saturation Water Content of Wool by a Calorimetric Method—L 228
Slow Absorption of Water by Heat-Treated Wool Fibers—L 913
The Modification of Wool by Certain Organic Sorbates (*Griffith*) 183
Hamalainen, Carl Poly-Set Process for Producing Durable-Press Cotton Goods (*Reeves, St. Mard, Cooper*) 76
Handu, J. L. Chemical and Mechanical Damage in Service Wear of Cotton Apparel Fabrics (*Sreenivas, Ranganathan*)—L 997
Harper, Robert J., Jr. Stiffness, An Important Factor in the Abrasion Performance of Durable-Press Cottons (*Blanchard, Lofton, Gautreaux*) 233
Hartley, F. R. Modifications to a Recent Scouring Process for the Production of Wool Resistant to Yellowing (*Wallace*)—L 1078
Hearle, J. W. S. Nonwoven Fabric Studies. Part XIII: The Influence of the Binder on the Tensile Properties of Nonwovens (*Newton*) 495
Nonwoven Fabric Studies. Part XIV: Derivation of Generalized Mechanics by the Energy Method (*Newton*) 778
Hebeish, A. Grafting Acrylonitrile on Cellulosic Materials by Tetravalent Cerium (*Mehta*)—L 911
Hebert, Jacques J. Is the Spiral Angle of Cotton Constant?—L 57
Hertel, K. L. Measurement of Fiber Assembly Shear Energy Transformation—L 433
Hines, William W. Weaving Processes—Effects of Non-Preemptive Priority and Operator Interference on Output (*Nass, Flege*) 798
Hinojosa, Oscar Effects of Light on ESR Spectra of Dyed Cottons (*Baugh, Mares, Hoffman, Arthur*) 942
Hobart, Stanley R. An Investigation of the Reversibility of N-Methylolacrylamide Cross Links on Cotton 380
Hoffman, Milton Effects of Light on the ESR Spectra of Dyed Cottons (*Baugh, Hinojosa, Mares, Arthur*) 942
Hoiness, D. E. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Roberts, Wade, Brannan, Janssen, Pittman*) 1020
Hollies, Norman R. S. Wet-Fixation Process for Improved Durable-Press Cotton (*Getchell*) 70
Holt, L. A. Studies in Wool Yellowing. Part XVI: Repeated Alternate Yellowing and Peroxide Bleaching (*Inglis, Lennox*) 490
Htun, Myat Thoung The Effect of Auto Cross-Linking Reactions on the Thermal Softening of Cellulose (*Back, Jackson, Johanson*)—L 432
Hunter, I. M. A Comparison of the Tensile Properties of Kemp, Mohair, and Wool Fibers (*Kruger*) 220

Hurley, R. B. Dimensional Stability of High-Bulk Acrylic Knit Fabrics (*Duby*) . . . 667
The Tumble-Drying Process and Acrylic Knitted Fabrics . . . 746
Husain, I. Improved Abrasion Resistance Through Internal Lubrication (*Chipalkatti, Sattur, Bajaj*) . . . 242

Inglis, A. S. Some Effects of Peroxide Oxidation on Wool (*Leaver*)—L . . . 995
Studies in Wool Yellowing. Part XVI: Repeated Alternate Yellowing and Peroxide Bleaching (*Holt, Lennox*) . . . 490
The Formation of Various Cross Linkages in Wool and Their Effect on the Supercontraction Properties of the Fibers (*Crewther, Dowling, Maclaren*) . . . 736
Isings, J. Effect of Different Steaming Treatments on the Physical and Mechanical Properties of Cotton Fabrics, Yarns, and Fibers (*Spit, Borsten*)—L . . . 1080
Iwanow, N. Study of the Phenomena of Diffusion and Adsorption of Direct Dyes in Viscose Fibers by the Method of Differential Dyeing. Part II: A Statistical Study on Populations of Fibers (*Schneider*) . . . 11
Iyengar, R. L. N. Circularity of Cotton Fibers and the Effects of Alkali Concentration and Tension on the Changes Brought About in it During Mercerization (*Oka, Prakash*) . . . 61

Jackson, Michal The Effect of Auto Cross-Linking Reactions on the Thermal Softening of Cellulose (*Back, Htun, Johanson*)—L . . . 432
Jalihal, M. R. Studies on Magra (Indian) Wool. Part I: The Physical and Chemical Properties (*Blakey, Earland*) . . . 688
Janssen, H. J. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Roberts, Hoiness, Wade, Brannan, Pittman*) . . . 1020
Jeffries, R. Chemical Structures of Cross Links from the Reaction of N-Methylolamide with Cellulose (*Vail, Roberts*)—L . . . 708
Joarder, Golam K. An Estimation of the Accessibility of Cotton Cellulose to Formaldehyde in the Vapor Phase (*Rowland*)—L 1083
Johanson, Frans The Effect of Auto Cross-Linking Reactions on the Thermal Softening of Cellulose (*Back, Htun, Jackson*)—L . . . 432
Joshi, V. S. Some Mechanical Properties of Swollen and Stretched Cotton Using Different Swelling Agents (*Shelat, Radhakrishnan*) . . . 989

Kantouch, A. Chemical Investigation of the Sulfur-Containing Amino Acids and Sulfur Content of Persulfate-Oxidized Wool (*Bendak*) . . . 483
The Action of Periodic Acid and its Salts on Wool. Part I: Periodate Consumption (*Bendak*) . . . 772
Kapur, C. Capillary Sorption Equilibria in Fiber Masses (*Burgeni*) 356
Kazan, J. A Fiber-Reactive Photochromic Dye for Nylon (*Foster*) 376
King, N. E. Comparison of Young's Modulus for Bending and Extension of Simple Mohair and Kemp Fibers . . . 204
Kirby, Rosa D. Observations on Properties of Partially Formylated Cottons; and Formyl Groups as Adsorption Sites for Direct Dyes (*Goldthwait*) . . . 136
Kirkland, W. E. Direct Pressing of Fibers for Infrared Spectroscopic Studies (*Knight, Smoak, Porter*) . . . 924
Kirkpatrick, A. Studies in Wool Yellowing. Part XVII: A Survey for Inhibitors of Sunlight Yellowing (*Maclaren*) . . . 510
Knapton, James J. F. Knitting Performance of Wool Yarns: Instrumentation Studies . . . 539
Knight, J. A. Direct Pressing of Fibers for Infrared Spectroscopic Studies (*Smoak, Porter, Kirkland*) . . . 924
Knudsen, J. P. Mixed-Stream Spinning of Bicomponent Fibers (*Fitzgerald*) . . . 447
Kodani, R. Y. Continuous Shrink-Resist Treatment of Wool Fabric With Ozone (*Thorsen*) . . . 975
Konopásek, Miloš Nonlinear Deflection Analysis of Fibers—L 53
Køpke, Vibeke The Timing of Moisture Regain Changes and Fabric Deformation in Wrinkle Recovery Tests (*Dalen*)—L 535
Krasny, J. F. APO—Copolymer Systems for Cotton (*Tolgyesi*) 298
Distortion Angle and Constructional Factors of Woolen or Worsted Fabrics (*O'Connell, Russell*)—L . . . 58
Kruger, P. J. A Comparison of the Tensile Properties of Kemp, Mohair, and Wool Fibers (*Hunter*) . . . 220
Kubu, E. Fundamental Property Considerations in Tailoring a New Fiber (*Papero, Roldan*) . . . 823
Kullman, Russell M. H. Lightfastness of Dyes on Wash-Wear Cotton (*Frick, Reinhardt, Reid*) . . . 894

Lang, Joe H. *O,O*-diethyl Phosphorothioate with Phenylglyoxylol-1 nitrile (Bay 77488) as a Mothproofer of Woolen Fabrics (*Bry*) . . . 915
Laughlin, Kenneth C. Carpet Performance. Part I: The Tetrapod Walker Test (*Cusick*) . . . 608
Leaver, I. H. Some Effects of Peroxide Oxidation of Wool (*Inglis*)—L . . . 995
Lee, Julia S. Some Physical Properties of Weathered Wool (*Finkner*) . . . 211
Lee, Sung Won A Probability Model for Random Fiber Breakages. Part I: Theory . . . 860
Lennhoff, Monique The Cystine Content of Hair: Fiber-to-Fiber Variation (*Wolfram*)—L . . . 145
Lennox, F. G. Studies in Wool Yellowing. Part XVI: Repeated Alternate Yellowing and Peroxide Bleaching (*Holt, Inglis*) 490
Leonard, Ethel K. Methylol Derivatives of Halo Cyanoacetamides and Their Evaluation on Cotton Fabrics (*Chance, Drake*) . . . 339
Lewin, Menachem Oxidation of Formaldehyde-Crosslinked Cotton (*Weinstein*) . . . 751
Liang, M. The Problems of Textile Information Retrieval (*Backer, Valko*) . . . 880
Lofton, John T. Stiffness, An Important Factor in the Abrasion Performance of Durable-Press Cottons (*Harper, Blanchard, Gautreaux*) . . . 233
Löring, A. Chromatography of Azo Dyes Capable of Forming H-Bonds (*Dobozy, Péter*)—L . . . 60
Louis, Gain L. Graphical Conversion of Digital Fibrograph into Suter-Webb Array Data (*Fiori*)—L . . . 815
Lyons, W. James Fatigue in Textile Fibers. Part X: Fatiguing by Cyclic Tension: Influence of Temperature on Lifetime and Growth (*Ribnick*) . . . 1014
Fiber Surface Properties in Relation to Linear Assemblies During Processing. Part I: General Considerations; Results on the Worsted System (*Scardino*) . . . 874
Fiber Surface Properties in Relation to Linear Assemblies During Processing. Part II: Results on the Cotton and Woolen Systems; Other Studies (*Scardino*) . . . 982
Fiber Surface Properties in Relation to Linear Assemblies During Processing. Part III: Effects of Processing on Surface and Geometric Properties of Fibers (*Scardino*) . . . 1005
Methods of Mounting Single Fibers for Tensile Loading (*Way, Buvel*)—L . . . 146
Scale for the Variate on Weibull Probability Coordinates—A Correction (*Prevorsek, Whitwell*)—L . . . 1087

McCall, Elizabeth R. Nuclear Magnetic Resonance Spectra of the Hydrolysis Products of Dimethylolethyleneurea and of Cotton Reacted with Dimethylolethyleneurea (*Miles, Wall*) 928
Mack, Charles H. Effects of Bases on the Pyrolysis of Cotton Cellulose (*Donaldson*) . . . 1063
Maclaren, J. Studies in Wool Yellowing. Part XVII: A Survey for Inhibitors of Sunlight Yellowing (*Kirkpatrick, Maclaren*) 510
Maclaren, J. A. The Formation of Various Cross Linkages in Wool and Their Effect on the Supercontraction Properties of the Fibers (*Crewther, Dowling, Inglis*) . . . 736
McKelvey, John B. Effect of Esterification Method on Fabric Properties of Cotton Esters of Long-Chain Monobasic Acids (*Berni, Benerito*)—L . . . 706
McMahon, P. R. Temperature Effects in Loose Wool and Fabric Felting Using Blankenburg's Method (*Sherman, Balasubramanian*)—L . . . 534
McNamara, Aidan B. Knitted Fabrics Subjected to Biaxial Stress—An Experimental Study (*MacRory*)—L . . . 908
McPhee, J. R. Treatment of Wool with Polyolefins (*Feldtman, Pratt*) . . . 46
The Effect of Machine Action on Soil Removal from Wool During Laundering (*Brooks*) . . . 371
The Variability of Wool Tops in Treatments with Oxidative Shrink-Resist Reagents (*Anderson*) . . . 582
MacRory, Brian M. Knitted Fabric Subjected to Biaxial Stress—An Experimental Study (*McNamara*)—L . . . 908
Makinson, K. Rachel The Use of a Diffraction Grating as the Rubbing Surface in the Study of the Frictional Properties of Wool Fibers . . . 763
Mann, R. K. An Investigation of Cloth Bending. Part II: The Remanent Curvature Hypothesis (*Stuart*) . . . 613
Mares, Trinidad Effect of Light on the ESR Spectra of Dyed Cottons (*Baugh, Hinojosa, Hoffman, Arthur*) . . . 942
Margavio, Matthew F. Cross-Linked Silicone Films in Textile Finishing. II: Wash-Wear Durable-Press Cottons at Low Levels of Cellulose Cross-Linking (*Welch, Bullock*) . . . 324
Mehta, P. C. Grafting of Acrylonitrile on Cellulosic Materials by Tetravalent Cerium (*Hebeish*)—L . . . 911
Mehta, A. C. Photochemistry of Cotton and Chemically Modified Cotton. Part I: Behavior During Exposure to Carbon-Arc and Solar Radiations (*Daruwalla, D'Silva*) . . . 147
Meierer, Robert E. Combustibility Tests on Several Flame-Resistant Fabrics in Compressed Air, Oxygen-Enriched Air, and Pure Oxygen (*Cook, Shields*) . . . 591
Michie, R. I. C. Nonwoven Fabric Studies. Part XII: Observations on Latex Migration in Fiber Webs (*Wilkinson*) . . . 461
Miles, Sylvia H. Nuclear Magnetic Resonance Spectra of the Hydrolysis Products of Dimethylolethyleneurea and of Cotton Reacted with Dimethylolethyleneurea (*Wall, McCall*) . . . 928
Miller, Bernard Liquid Rise Between Filaments in a V-Configuration (*Coe, Ramachandran*) . . . 919
Minhas, P. S. Accessibility of Cellulose by the Thallous Ethylate Method—Application to the Measurement of Cellulose Liquid Interactions (*Robertson*) . . . 400
Mitchell, T. W. The Mechanical Properties of Wool Fibers in Water at Temperatures Above 100°C (*Feughelman*) . . . 660
Murayama, T. Wave Propagation and Dynamic Modulus in Continuous-Filament Twisted Yarns. Part I: Low Initial Yarn Tension (*Zorowski*) . . . 844

Nakajima, William N. Wet-Fixation Durable-Press Process—Reactions with Cellulose (*O'Brien, Hagan, Roth, White*) . . . 288
Nass, Alan W. Weaving Processes—Effects of Non-Preemptive Priority and Operator Interference on Output (*Hines, Flege*) 798
Newton, A. Nonwoven Fabric Studies. Part XIII: The Influence of the Binder on the Tensile Properties of Nonwovens (*Hearle*) 495
Nonwoven Fabric Studies. Part XIV: Derivation of Generalized Mechanics by the Energy Method (*Hearle*) . . . 778
Nicholls, C. H. Some Chemical Reactions Involved in the Alkaline Yellowing of Wool (*Norton*) . . . 1031

Norton, G. P. Some Chemical Reactions Involved in the Alkaline Yellowing of Wool (*Nicholls*) 1031

O'Brien, S. James Wet-Fixation Durable-Press Process—Reactions with Cellulose (*Hagan, Nakajima, Roth, White*) . . . 288
O'Connell, R. A. Distortion Angle and Constructional Factors of Woolen or Worsted Fabrics (*Krasny, Russell*)—L 58
Oka, P. G. Circularity of Cotton Fibers and the Effects of Alkali Concentration and Tension on the Changes Brought About in it During Mercerization (*Pakash, Iyengar*) 61
Olds, Walter F. Non-Reactive and Co-Reactive Additives in Cotton Cross-Linking (*Valko, Tovey*) 253
Olofsson, B. Bending Stiffness of Looped Fabrics—L 618
Olofsson, Bertil Response to letter by Stuart and Baird—L . . 620
Opt, Preston C. Effects of Combined Gamma Radiation and Thermal Exposure on Some Mechanical Properties of Three Polyaromatic Yarns (*Ross*) 1050
Orr, Rollin S. The Effects of Various Combinations of Physical and Chemical Treatments on the Physical Properties of Cotton Yarns and Bundles (*Egle, Grant*) 574

Papero, P. V. Fundamental Property Considerations in Tailoring a New Fiber (*Kubu, Roldan*) 823
Parikh, R. S. Reaction Mechanism Involved in Cross-Linking Formaldehyde and RCH_2OH with Cellulose—L 538
Patil, N. B. Decrystallization of Cotton: Crystalline Standards; response to letter by A. Viswanathan—L 995
Patterson, H. T. Studies of Soiling and Detergency. Part III: Detergency Experiments with Particulate Carbon Soils (*Grindstaff, Billica*) 564
Péter, F. Chromatography of Azo Dyes Capable of Forming H-Bonds (Lőrinc, Dobozy)—L 60
Petersen, Harro A. Substituted Propylene Urea in Conventional, Wet, and Moist Curing (*Bille*) 264
Pittman, A. G. Reactive Polymer Finishes for Wool. Part IV: Phase Boundary Limited Cross-Linking of Reactive Polyesters and Polyethers to Yield Polyurethanes (*Whitfield, Remy*) 655
Pittman, P. F. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Roberts, Hoiness, Wade, Brannan, Janssen*) 1020
Platt, Milton M. Mechanics of Elastic Performance of Textile Materials. Part XVIII: Stress-Strain Response of Fabrics Under Two-Dimensional Loading (Freeston, Schoppee) . . . 948
Plonsker, Harvey R. The Dynamics of Roller Drafting. Part I: Drafting Force Measurement (*Backer*) 673
Porter, Blanche R. Changes in Microporous Structure of Modified Cotton Fabrics Water-Swollen After Creaseproofing or other Modification (*Schreiber*)—L 999
Porter, John J. A Fundamental Study of the Acid Dyeing Equilibria of Aminized Cotton (*Evans*) 643
Porter, R. A. Direct Pressing of Fibers for Infrared Spectroscopic Studies (*Knight, Smoak, Kirkland*) 924
Prakash, Jai Circularity of Cotton Fibers and the Effects of Alkali Concentration and Tension on the Changes Brought About in it During Mercerization (*Oka, Iyengar*) 61
Pratt A. J. Treatment of Wool with Polyolefins (*Feldtman, McPhee*) 46
Prevorsek, Dusan C. Scale for the Variate on Weibull Probability Coordinates—A Correction (*Lyons, Whitwell*)—L . . 1087
Puente, P. Considerations on the Kinetics of the Dyeing Process of Polyester Fibers with Dispersed Dyes (*Cegarra*) 343

Radhakrishnan, T. Decrystallization of Cotton: Crystalline Standards; Response to letter by *A. Viswanathan*—L 995
Degree of Cross-Linking and Fiber, Yarn, and Fabric Properties (*Dweltz*) 129
Some Mechanical Properties of Swollen and Stretched Cotton Using Different Swelling Agents (*Joshi, Shelat*) 989
Ramachandran, P. N. Liquid Rise Between Filaments in a V-Configuration (*Miller, Coe*) 919
Ranganathan, S. R. Chemical and Mechanical Damage in Service Wear of Cotton Apparel Fabrics (*Handu, Sreenivas*)—L 997
Raven, D. J. The "Free" Sulfur Content of Proteins (*Earland*)—L 1004
Ray, P. K. On the Degree of Crystallinity in Some Cellulose Fibers Under Different Moisture Conditions—L 434
Reeves, W. A. Novel Mineral Dyeing Process for Improved Weather Resistance of Cotton (*Conner, Danna, Cooper*) . . 94
Poly-Set Process for Producing Durable-Press Cotton Goods (*Hamalainen, St. Mard, Cooper*) 76
Reid, J. David Lightfastness of Dyes on Wash-Wear Cotton (*Frick, Kullman, Reinhardt*) 894
Reinhardt, Robert M. Lightfastness of Dyes on Wash-Wear Cotton (*Frick, Kullman, Reid*) 894
Reis, P. J. The Longitudinal Mechanical Properties of Wool Fibers and Their Relationship to the Low-Sulfur Keratin Fraction (*Feughelman*)—L 334
Remy, D. E. Reactive Polymer Finishes for Wool. Part IV: Phase Boundary Limited Cross-Linking of Reactive Polyesters and Polyethers to Yield Polyurethanes (*Whitfield, Pittman*) 655
Rhodes, W. K. Felting of Wool in Solvent-Water Mixtures—L 814
Ribnick, Arthur S. Fatigue in Textile Fibers. Part X: Fatiguing by Cyclic Tension: Influence of Temperature on Lifetime and Growth (*Lyons*) 1014
Robbins, Clarence Infrared Analysis of Oxidized Keratins—L 811
Weathering in Human Hair—L 337
Roberts, E. J. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Hoiness, Wade, Brannan, Janssen, Pittman*) 1020
Roberts, J. G. Chemical Structures of Cross Links from the Reaction of N-Methylolamide with Cellulose (*Vail, Jeffries*)—L 708
Robertson, A. A. Accessibility of Cellulose by the Thallous Ethylate Method—Application to the Measurement of Cellulose Liquid Interaction (*Minhas*) 400
Robinson, M. S. The Relationship Between Some Mechanical Properties of Single Wool Fibers and Relative Humidity (*Feughelman*) 441
The Tensile Behavior of Wool Fibers in Liquid Nitrogen (*Feughelman*)—L 705
Roldan, L. Fundamental Property Considerations in Tailoring a New Fiber (*Papero, Kubu*) 823
Ross, Jack H. Effects of Combined Gamma Radiation and Thermal Exposure on Some Mechanical Properties of Three Polyaromatic Yarns (*Opt*) 1050
Roth, Phillip B. Wet-Fixation Durable-Press Process—Reactions with Cellulose (*O'Brien, Hagan, Nakajima, White*) . . . 288
Rowland, Stanley P. An Estimation of the Accessibility of Cotton Cellulose to Formaldehyde in the Vapor Phase (*Joarder*)—L 1083
Effect of Ionic Substituents on Wrinkle Recovery Angles of a Cross-Linked Cotton (*Brannan*)—L 232
Introduction of Ester Cross Links into Cotton Cellulose by a Rapid Curing Process (*Welch, Brannan, Gallagher*) 933
The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Bullock, Cirino, Roberts, Hoiness, Wade, Brannan, Janssen, Pittman*) 1020
Russell, H. W. Distortion Angle and Constructional Factors of Woolen or Worsted Fabrics (*O'Connell, Krasny*)—L 58
Rutherford, Henry A. Delayed Cure With Ionizing Radiation (*Walsh*) 89
Ryan, J. J. New Catalysts for Resin Finishing (*Burkitt, Tattersal, Taylor*) 311

St. Mard, H. H. Poly-Set Process for Producing Durable-Press Cotton Goods (*Reeves, Hamalainen, Cooper*) 76
Salhotra, K. R. Twist Flow in Ring Spinning (*Subramanian, Bhaduri*) 195
Sattur, N. B. Improved Abrasion Resistance Through Internal Lubrication (*Chipalkatti, Husain, Bajaj*) 242
Scardino, Francis L. Fiber Surface Properties in Relation to Linear Assemblies During Processing. Part I: General Considerations; Results on the Worsted System (*Lyons*) 874
Fiber Surface Characteristics in Relation to Linear Assemblies During Processing. Part II: Results on the Cotton and Woolen Systems; Other Studies (*Lyons*) 982
Fiber Surface Properties in Relation to Linear Assemblies During Processing. Part III: Effects of Processing on Surface and Geometric Properties of Fibers (*Lyons*) 1005
Schneider, R. Study of the Phenomena of Diffusion and Adsorption of Direct Dyes in Viscose Fibers by the Method of Differential Dyeing. Part II: A Statistical Study on Populations of Fibers (*Iwanow*) 11
Schoppee, Meredith M. Mechanics of Elastic Performance of Textile Materials. Part XVIII: Stress-Strain Response of Fabrics Under Two-Dimensional Loading (*Freeston, Platt*) 948
Schott, Hans Interaction of Anionic Detergents With Cellulose—L 336
Schreiber, Sidney P. Changes in Microporous Structure of Modified Cotton Fabrics Water-Swollen After Creaseproofing or other Modification (*Porter*)—L 999
Schwenker, Robert F., Jr. Grafting of Preformed Polystyrene onto Cotton Cellulose (Avny) 817
Thermoplasticity and Resilience Through Benzoylation and Cross-Linking (*Willard*) 316
Shelat, B. R. Some Mechanical Properties of Swollen and Stretched Cotton Using Different Swelling Agents (*Joshi, Radhakrishnan*) 989
Sherman, J. B. Temperature Effects in Loose Wool and Fabric Felting Using Blankenburg's Method (*Balasubramanian, MacMahon*)—L 534
Shields, Bruce M. Combustibility Tests on Several Flame-Resistant Fabrics in Compressed Air, Oxygen-Enriched Air, and Pure Oxygen (*Cook, Meierer*) 591
Simpson, J. Effect of Carding Rate and Cylinder Speed on Fiber Hooks and Spinning Performance for an Irrigated Acala Cotton (*DeLuca, Fiori*) 504
Smoak, M. P. Direct Pressing of Fibers for Infrared Spectroscopic Studies (*Knight, Porter, Kirkland*) 924
Snaith, J. W. Differential Thermal Analysis of Wool—The Phase-Transition Endotherm Under Various Conditions (*Haly*) 898
Snowden, Frank W. Reaction of a Diisocyanate with Cotton to Produce Wash-Wear Fabrics (*Verburg*) 367
Soignet, Donald M. Improved Preparation of Diethylaminoethyl-Cotton Fabrics (*Benerito*)—L 1001
Spit, B. J. Effect of Different Steaming Treatments on the Physical and Mechanical Properties of Fabrics, Yarns, and Fibers (*Isings, Borsten*)—L 1078
Spivak, S. M. The Behavior of Fabrics in Shear. Part II: Heat-Set Nylon Monofil Fabrics and a New Dynamic Method for the Measurement of Fabric Loss Properties in Shear (*Treloar*) 1038
Sreenivas, K. Chemical and Mechanical Damage in Service Wear of Cotton Apparel Fabrics (*Handu, Ranganathan*)—L 997

Staples, M. L. Sonic and Ultrasonic Irradiation of Cotton Fibers. Part I: Irradiation in Liquid Phase (*Boucher*) . . . 621
Part II: Airborne Irradiation (*Boucher*) . . . 635
Stein, W. Influence of Tensides on the Mechanical and Absorption Properties of Wool Fibers (*Zahn, Blankenburg*)—L . . . 701
Stuart, I. M. An Investigation of Cloth Bending. Part II: The Remanent Curvature Hypothesis (*Mann*) . . . 613
Bending Stiffness of Looped Fabrics (*Baird*)—L . . . 619
Subramanian, T. A. Twist Flow in Ring Spinning (*Salhotra, Bhaduri*) . . . 195
Suh, Won Moon A Study of the Shrinkage of Plain Knitted Cotton Fabric, Based on the Structural Changes of the Loop Geometry Due to Yarn Swelling and Deswelling . . . 417
Sweetman, J. B. The Hydrothermal Degradation of Wool Keratin. Part I: Chemical Changes Associated With the Treatment of Wool Keratin With Water at 50–100° . . . 834
The Hydrothermal Degradation of Wool Keratin. Part I: Chemical Changes Associated With the Treatment of Wool Keratin With Water or Steam at Temperatures Above 100° 844

Tandon, G. N. Photochemistry of Cotton and Chemically Modified Cotton. Part II: Photosensitization in Presence of Vat Dyes (*Daruwalla, D'Silva*) . . . 160
Tattersal, R. New Catalysts for Resin Finishing (*Burkitt, Ryan, Taylor*) . . . 311
Taylor, P. J. New Catalysts for Resin Finishing (*Burkitt, Ryan, Tattersal*) . . . 311
Thorsen, W. J. Continuous Shrink-Resist Treatment of Wool Fabric With Ozone (*Kodani*) . . . 975
Tippets, E. A. Fiber Engineering to Meet End Use Requirements 524
Tolgyesi, W. S. APO—Copolymer Systems for Cotton (*Krasny*) 298
Tovey, Henry Non-Reactive and Co-Reactive Additives in Cotton Cross-Linking (*Valko, Olds*) . . . 253
Treloar, L. G. R. The Behavior of Fabrics in Shear. Part II: Heat-Set Nylon Monofil Fabrics and a New Dynamic Method for the Measurement of Fabric Loss Properties in Shear (*Spivak*) . . . 1038
Tripp, Verne W. X-Ray and Optical Orientation Measurements on Single Cotton Fibers (*Duckett*) . . . 517
Turbak, A. F. Dye Structure Relationships for Dyeing Metal-Containing Propylene . . . 350

Vail, Sidney L. Chemical Structures of Cross Links from the Reaction of N-Methylolamide with Cellulose (*Roberts, Jeffries*)—L . . . 708
The Mechanism of Formation and Hydrolysis of Cross Links in Cellulose (*Barker*)—L . . . 1077
Valko, Emery I. Non-Reactive and Co-Reactive Additives in Cotton Cross-Linking (*Olds, Tovey*) . . . 253
Spinning of Cotton Yarns from Cross-Linked and Untreated Fibers on the Woolen System and Their Performance in Winter-Weight Fabrics (*Angelo*) . . . 600
The Problems of Textile Information Retrieval (*Backer, Liang*) 880
Vehmas, O. E. Tensile Testing of High-Modulus Low-Elongation Fibers—L . . . 437
Verburg, Gerald B. Reaction of a Diisocyanate with Cotton to Produce Wash-Wear Fabrics (*Snowden*) . . . 367
Villaronga, M. Drafting Force in the Front Zone of a Double Apron Drafting System (*Audivert, Coscollá*) . . . 1
Viswanathan, A. Decrystallization of Cotton: Crystalline Standards—L . . . 994

Wade, C. P. The Relative Reactivities of the Hydroxyl Groups of Cotton Cellulose—A Progress Report (*Rowland, Bullock, Cirino, Roberts, Hoinss, Brannan, Janssen, Pittman*) . . . 1020
Wade, Ricardo H. Iodide Ion Catalysts in the Benzylation of Cotton Cellulose (*Welch*) . . . 586
Wall, James H. Nuclear Magnetic Resonance Spectra of the Hydrolysis Products of Dimethylolethyleneurea and of Cotton Reacted with Dimethylolethyleneurea (*Miles, McCall*) . . . 928
Wallace, B. J. Modifications to a Recent Scouring Process for the Production of Wool Resistant to Yellowing (*Hartley*)—L 1078
Walsh, W. K. Delayed Cure With Ionizing Radiation (*Rutherford*) . . . 89
Warburton, C. E., Jr. Multiple Points of Rupture in Textile Fibers. Part II: Influence of Structure (*Whitwell*) . . . 711
Warburton, C. E. On the Application of the Double Exponential and Weibull Distributions to Failure Data—L . . . 703
Ward, Wilfred H. Dissolution and Properties of Reduced Wool in Dilute Acid Near Room Temperature—L . . . 1085
Way, Polly K. Methods of Mounting Single Fibers for Tensile Loading (*Buvel, Lyons*)—L . . . 146
Wehner, A. Influence of Swelling and Monosubstitution on the Strength of Cross-Linked Cotton (*Gagliardi*) . . . 118
Weinstein, Shulamit Oxidation of Formaldehyde-Crosslinked Cotton (*Lewin*) . . . 751
Welch, Clark M. Cross-Linked Silicone Films in Textile Finishing. II: Wash-Wear and Durable-Press Cottons at Low Levels of Cellulose Cross-Linking (*Bullock, Margavio*) . . . 324
Introduction of Ester Cross Links into Cotton Cellulose by a Rapid Curing Process (*Rowland, Brannan, Gallagher*) . . . 933
Iodide Ion Catalysis in Benzylation of Cotton Cellulose (*Wade*) 586
Whitney, James Extensional Deformation of Statically Loaded Filaments—L . . . 55
White, David Wet-Fixation Durable-Press Process—Reactions with Cellulose (*O'Brien, Hagan, Nakajima, Roth*) . . . 288
Whitfield, R. E. Reactive Polymer Finishes for Wool. Part IV: Phase Boundary Limited Cross-Linking of Reactive Polyesters and Polyethers to Yield Polyurethanes (*Remy, Pittman*) 655
Whitney, J. M. Basic Mechanics of Fiber Reinforced Composite Materials . . . 1056
Influence of Micromechanical Parameters on the Gross Properties of Fiber Reinforced Composites . . . 1008
Whitwell, John C. Multiple Points of Rupture in Textile Fibers. Part I: Influence of Structure (*Warburton*) . . . 711
Scale for the Variate on Weibull Probability Coordinates—A Correction (*Prevorsek, Lyons*)—L . . . 1087
Wiles, D. M. The Effect of Solvents on Some Properties of Cotton Cellulose (*Cooney, Gingras*) . . . 476
Wilkinson, J. A. Nonwoven Fabric Studies. Part XII: Observation on Latex Migration in Fiber Webs (*Michie*) . . . 461
Willard, John J. Thermoplasticity and Resilience Through Benzoylation and Cross-Linking (*Schwenker*) . . . 316
Williams, V. A. Wool Insectproofing with Surface-Active Agents. Part I: Anionics and Anionic-Cationic Complexes (*Freeland*) 408
Wolfram, L. J. The Cystine Content of Hair: Fiber-to-Fiber Variation (*Lennhoff*)—L . . . 145

Zahn, H. Influence of Tensides on the Mechanical and Absorption Properties of Wool Fibers (*Stein, Blankenburg*)—L . . . 701
Ziifle, Hilda M. Physicochemical Study of the Cotton Cellulose–Dimethylolpropyleneurea Reaction (*Gonzales, Berni, Benerito*) 726
Zorowski, C. F. Wave Propagation and Dynamic Modulus in Continuous-Filament Twisted Yarns. Part I: Low Initial Yarn Tension (*Murayama*) . . . 844

SUBJECT INDEX

Abrasion, see **Wear**
Acrylic Fibers
dimensional stability of high-bulk knit acrylic knit fabrics *Hurley, Duby* . . . 667
Adsorption
modification of wool by certain organic sorbates: equilibrium adsorption and subsequent water uptake *Griffith* . . . 173
Analysis
free sulfur—response to letter by *Earl and Raven* Mrs. K.
free sulfur—*Mrs. K. Gupta* response to letter by *Earl and Raven*—L . . . 1004
infrared, of oxidized keratins *Robbins*—L . . . 811
Apparatus, see **Testing apparatus**
Apparel
chemical and mechanical damage in service wear of cotton apparel *Handu, Sreenivas, Ranganathan*—L . . . 997

Bast Fibers
effect of oil and water on jute fiber friction *Bandyopadhyay, Bose* . . . 697
Bleaching
repeated alternate yellowing and peroxide bleaching *Holt, Inglis, Lennox* . . . 490

Carding (see also **Textile Processing**)
Carpets
carpet performance: tetrapod walker test *Laughlin, Cusick* 608
Cellulose
accessibility of cellulose by the thallous ethylate method—application to the measurement of cellulose liquid interactions *Minhas, Robertson* . . . 400
chemical structures of cross links from the reaction of N-methylolamide with cellulose *Vail, Roberts, Jeffries*—L . . . 708
degree of crystallinity in some cellulose fibers under different moisture conditions *Ray*—L . . . 434
effect of auto cross-linking reactions on the thermal softening of cellulose *Back, Htun, Jackson, Johanson* . . . 432
effects of solvents on some properties of cotton cellulose *Wiles, Cooney, Gingras* . . . 476
estimation of accessibility to formaldehyde in the vapor phase *Joarder, Rowland*—L . . . 1083
estimation of length of oxymethylene bridges introduced by formaldehyde and by methylenedisulfuric acid *Guthrie* 40
grafting of preformed polystyrene onto cotton cellulose *Avny, Schwenker* . . . 817
interaction with anionic detergents *Schott*—L . . . 336
introduction of ester cross links into cotton cellulose by a rapid curing process *Rowland, Welch, Brannan, Gallagher* 933
iodide ion catalysis in the benzylation of cotton cellulose *Wade, Welch* . . . 586
mechanism of formation and hydrolysis of cross links in *Earker, Vail*—L . . . 1077
physicochemical study of the cotton cellulose–dimethylolpropyleneurea reaction *Gonzales, Ziifle, Berni, Benerito* 726
reaction mechanism involved in cross-linking formaldehyde and RCH_2OH with cellulose *Parikh*—L . . . 538
relative reactivities of hydroxyl groups *Rowland, Bullock, Cirino, Roberts, Hoiness, Wade, Brannan, Janssen, Pittman* 1020
wet-fixation durable-press process: reactions with cellulose *O'Brien, Hagan, Nakajima, Roth, White* . . . 288
Chemical Reactions
relative reactivities of hydroxyl groups of cotton cellulose *Rowland, Bullock, Cirino, Roberts, Hoiness, Wade, Brannan, Janssen, Pittman* . . . 1020
some chemical reactions involved in the alkaline yellowing of wool *Norton, Nicholls* . . . 1031
Chemicals, see under **Cotton, chemically treated; Wool, chemically treated; Fungicides; Dyes; Mothproofing; Shrinkproofing; Textile Chemicals**

Chromatography
of azo dyes capable of forming H-bonds *Lörinc, Dobozy, Péter*—**L** 60
Cleaning, see **Textile Processing**
Colorfastness, see **Lightfastness**
Combing, see **Carding, Textile Processing**
Composite Materials
basic mechanics *Whitney* 1056
fiber reinforced: influence of micromechanical parameters on the gross properties *Whitney* 1008
Cotton, see **Cellulose; Cotton, Chemically Treated; Cotton, fibers; Cotton Quality; Cotton Yarn; Fabric Geometry; Fiber: Yarn: Fabric Relationships; Moisture Phenomena; Testing Apparatus and Procedures; Textile Processing**
Cotton, Chemically Treated
acid dyeing equilibria of aminized cotton *Porter, Evans* 643
APO-copolymer systems for cotton *Tolgyesi, Krasny* . . . 298
cross-linked silicone films in textile finishing: wash-wear durable-press cottons at low levels of cellulose cross-linking *Welch, Bullock, Margavio* 324
diethylaminoethyl-cotton: improved preparation *Soignet, Benerito*—**L** 1001
effect of esterification method on fabric properties of cotton esters of long-chain monobasic acids *Berni, McKelvey, Benerito*—**L** 706
effects of various combinations of physical and chemical treatments on the physical properties of cotton yarns and bundles *Egle, Grant, Orr* 574
grafting of preformed polystyrene onto cotton cellulose *Avny, Schwenker* 817
improved abrasion resistance through internal lubrication *Chipalkatti, Sattur, Husain, Bajaj* 242
influence of swelling and monosubstitution on the strength of cross-linked cotton *Gagliardi, Wehner* 118
iodide ion catalysis in the benzylation of cotton cellulose *Wade, Welch* 586
methylol derivatives of halo cyanoacetamides and their evaluation on cotton fabrics *Chance, Leonard, Drake* 339
microporous structure of modified cotton water-swollen after creaseproofing or other modification *Porter, Schreiber*—**L** 999
new catalysts for resin finishing *Burkitt, Ryan, Tattersal, Taylor* 311
non-reactive and co-reactive additives in cotton cross-linking *Valko, Olds, Tovey* 253
observations on properties of partially formylated cottons: formyl groups as adsorption sites for direct dyes *Goldthwait, Kirby,* 136
oxidation of formaldehyde-crosslinked cotton *Lewin, Weinstein* 751
photochemistry of cotton and chemically modified cotton: behavior during carbon-arc and solar radiations *Daruwalla, D'Silva, Mehta* 147
photochemistry of cotton and chemically modified cotton: photosensitization in presence of vat dyes *Daruwalla, D'Silva, Tandon* 160
physicochemical study of the cotton cellulose-dimethylolpropyleneurea reaction *Gonzales, Ziifle, Berni, Benerito* . . . 726
reaction of a diisocyanate with cotton to produce wash-wear fabrics *Verburg, Snowden* 367
reversibility of N-methylolacrylamide cross links on cotton *Hobart* 380
substituted propylene urea in conventional, wet, and moist curing *Bille, Petersen* 264
thermoplasticity and resilience through benzoylation and cross-linking *Willard, Schwenker* 316
wet-fixation DP process—polymer deposition *Hollies* . . . 277
Cotton Fibers
photochemistry of cotton and chemically modified cotton: behavior during carbon-arc and solar radiations *Daruwalla, D'Silva, Mehta* 147
photochemistry of cotton and chemically modified cotton: photosensitization in presence of vat dyes *Daruwalla, D'Silva, Tandon* 160
relation of intermicellar bonding and some mechanical properties of swollen cotton fibers *de Boer, Borsten* 390
some mechanical properties of swollen and stretched cotton using different swelling agents *Joshi, Shelat, Radhakrishnan* 989
sonic and ultrasonic: airborne irradiation *Boucher, Staples* . . 635
sonic and ultrasonic: irradiation in liquid phase *Boucher, Staples* 621
spiral angle, is it constant? *Hebert*—**L** 57
Crease Resistance and Creaseproofing
wrinkle recovery angles of a cross-linked cotton: effect of ionic substituents *Rowland, Brannan*—**L** 230
Cross-Linking see also **Cellulose; Cotton, chemically treated; Crease resistance and Creaseproofing**
agent for cellulose *Browne*—**L** 1081
APO-copolymer systems for cotton *Tolgyesi, Krasny* . . . 298
chemical structures of cross links from the reaction of N-methylolamide with cellulose *Vail, Roberts, Jeffries*—**L** . . 708
cross-linked silicone films in textile finishing: wash-wear durable-press cottons at low levels of cellulose cross-linking *Welch, Bullock, Margavio* 324
degree of cross-linking and fiber, yarn, and fabric properties *Dweltz, Radhakrishnan* 129
formation of various cross linkages in wool and their effect on the supercontraction properties of the fibers *Crewther, Dowling, Inglis, Maclaren* 736
influence of swelling and monosubstitution on the strength of cross-linked cotton *Gagliardi, Wehner* 118
introduction of ester cross links by a rapid curing process *Rowland, Welch, Brannan, Gallagher* 933
mechanism of formation and hydrolysis of cross links in cellulose *Barker, Vail*—**L** 1077
methylol derivatives of halo cyanoacetamides and their evaluation on cotton fabrics *Chance, Leonard, Drake* 339
non-reactive and co-reactive additives in cotton cross-linking *Valko, Olds, Tovey* 253
oxidation of formaldehyde-crosslinked cotton *Lewin, Weinstein* 751
reaction mechanism involved in cross-linking formaldehyde and RCH_2OH with cellulose *Parikh*—**L** 538
reactive polymer finishes for wool: phase boundary limited cross-linking reactive polyesters and polyethers to yield polyurethanes *Whitfield, Remy, Pittman* 655
reversibility of N-methylolacrylamide cross links on cotton *Hobart* 380
spinning of cotton yarns from cross-linked and untreated fibers on the woolen system and their performance in winter-weight fabrics *Valko, Angelo* 600
thermoplasticity and resilience through benzoylation and cross-linking *Willard, Schwenker* 316
Crystal Chemistry
decrystallization: crystalline standards *Patil, Radhakrishnan;* response to letter by *A. Viswanathan*—**L** 995
decrystallization: crystalline standards *Viswanathan*—**L** . . . 994
Curing
delayed cure with ionizing radiation *Walsh, Rutherford* . . . 89
poly-set process for producing durable-press cotton goods *Reeves, Hamalainen, St. Mard, Cooper* 76
substituted propyleneurea in conventional, wet, and moist curing *Bille, Petersen* 264

Detergents, see **Laundering**
Deterioration of Materials, *see* **Microbiological Degradation; Photochemical Effects; Wear**
Differential Thermal Analysis (see also **Heat Phenomena**)
of wool: the phase-transition endotherm under various conditions *Haly, Snaith* 898
Drafting (see also **Textile Processing**)
dynamics of roller drafting: drafting force measurement *Plonsker, Backer* 673
Drying
tumble-drying process and acrylic knitted fabrics *Hurley* . . 746
Durable Press
cross-linked silicone films in textile finishing: wash-wear durable-press cottons at low levels of cellulose cross-linking *Welch, Bullock, Margavio* 324
poly-set process for producing durable-press cotton goods *Reeves, Hamalainen, St. Mard, Cooper* 76
wet-fixation process for improved cotton *Hollies, Getchell* 70
wet-fixation DP process—polymer deposition *Hollies* . . . 277
wet-fixation durable-press process—reactions with cellulose *O'Brien, Hagan, Nakajima, Roth, White* 288
Dyeing (see also **Dyes**)
acid dyeing equilibria of aminized cotton *Porter, Evans* . . 643
differential method to study diffusion and adsorption in viscose fibers: statistical study on fiber populations *Iwanow, Schneider* 11
dye concentration profiles within single nylon filaments *Bell, Carter, Felty* 512
fiber-reactive photochromic dye for nylon *Foster, Kazan* . . . 376
kinetics of dyeing polyester fibers with dispersed dyes *Cegarra, Puente* 343
novel mineral process to improve weather resistance of cotton *Conner, Danna, Cooper, Reeves* 94
observations on properties of partially formylated cottons; formyl groups as adsorption sites for direct dyes *Goldthwait, Kirby* 136
Dyes (see also **Dyeing**)
chromatography of azo dyes capable of forming H-bonds *Lörinc, Dobozy, Péter*—**L** 60
direct: study of diffusion and adsorption in viscose fibers by method of differential dyeing: statistical study on fiber populations *Iwanow, Schneider* 11
fiber-reactive photochromic dye for nylon *Foster, Kazan* . . 376
dye structure relationships for dyeing metal-containing polypropylene *Turbak* 350
kinetics of dyeing polyester fibers with dispersed dyes *Cegarra, Puente* 343

Electron Spin Resonance
spectra of dyed cottons: effects of light *Baugh, Hinojosa, Mares, Hoffman* 942

Fabric Geometry
bending stiffness of looped fabrics *Olofsson*—**L** 618
bending stiffness of looped fabrics *Stuart, Baird*—**L** 619
bending stiffness of looped fabrics—*Olofsson* response to letter by *Stuart and Baird*—**L** 620
cloth bending: remanent curvature hypothesis *Stuart, Mann* 61
distortion angle and constructional factors of woolen or worsted fabrics *O'Connell, Krasny, Russell*—**L** 58
effect of esterification method on fabric properties of cotton esters of long-chain monobasic acid *Berni, McKelvey, Benerito*—**L** 706
latex migration in fiber webs *Michie, Wilkinson* 461
mechanics of elastic performance of textile materials: stress-strain response of fabrics under two-dimensional loading *Freeston, Platt, Schoppee* 948

multiple points of rupture in textile fibers: influence of structure *Warburton, Whitwell* 711
shrinkage of plain knitted cotton fabric: based on the structural changes of the loop geometry due to yarn swelling and deswelling *Suh* 417
Fabrics, see also **Fabric Geometry; Fiber: Yarn: Fabric Relationships; Knit Fabrics; Wool Fabrics; Wear**
Bay 77488 as mothproofer of woolen fabrics *Bry, Lang* 915
continuous shrink-resist treatment with ozone *Thorsen, Kodani* 975
timing of moisture regain changes and fabric deformation in wrinkle recovery tests *Køpke, Dalen*—**L** 535
Fabric Testing, see **Testing Apparatus and Procedures**
Fatigue
application of double exponential and Weibull distributions to failure data *Warburton*—**L** 703
in textile fibers under cyclic tension: influence of temperature on lifetime and growth *Lyons, Ribnick* 1014
Felting (see also **Shrinkproofing; Wool, Chemically Treated**)
felting of wool in solvent-water mixtures *Rhodes*—**L** 814
Fibers and Filaments (see also **Bast Fibers; Cotton Fibers; Keratin; specific man-made fibers; Wool Fibers**)
bi-constituent fiber system: morphological and physico-chemical characteristics *Papero, Kubu, Roldan* 823
circularity of cotton fibers and the effects of alkali concentration and tension brought about in it during mercerization *Oka, Prakash, Iyengar* 61
direct pressing: for infrared spectroscopic studies *Knight, Smoak, Porter, Kirkland* 924
extensional deformation of statically loaded *Whitney*—**L** 55
fiber breakage during recombing on the rectilinear system: study with radioisotopes *Aldrich* 454
fiber engineering to meet end use requirements *Tippets* . . . 574
fibers from crystalline hydrocarbons *Bryant* 552
fiber surface properties in relation to linear assemblies during processing: effects of processing on surface and geometric properties of fibers *Scardino, Lyons* 1005
graphical conversion of digital Fibrograph into Suter-Webb array data *Louis, Fiori*—**L** 815
measurement of fiber assembly shear energy transformation *Hertel*—**L** 433
nonlinear deflection analysis *Konopásek*—**L** 53
surface properties in relation to linear assemblies during processing: results on the cotton and woolen systems *Scardino, Lyons* 982
Fiber: Yarn: Fabric Relationships
degree of cross-linking and fiber, yarn, and fabric properties *Dweltz, Radhakrishnan* 129
Finishing, see **Cotton, Chemically Treated; Crease Resistance and Creaseproofing; Proofing; Water Resistance and Waterproofing; Wool, Chemically Treated**
Flameproofing
combustibility tests on several flame-resistant fabrics in compressed air, oxygen-enriched air, and pure oxygen *Cook, Meierer, Shields* 591
Flax, see **Bast Fibers**
Friction
effect of oil and water on jute fiber friction *Bandyopadhyay, Bose* 697
frictional properties: study by using a diffraction grating as a rubbing surface *Makinson* 763

Grafting (see also **Cotton, Chemically Treated; Wool, Chemically Treated**)
acrylonitrile on cellulosic materials by tetravalent cerium *Hebeish, Mehta*—**L** 911
preformed polystyrene onto cotton cellulose *Avny, Schwenker* 817

Heat Phenomena
effect of auto cross-linking reactions on the thermal softening of cellulose *Back, Htun, Jackson, Johanson* . . . 432
fatigue under cyclic tension: influence of temperature on lifetime and growth *Lyons, Ribnick* 1014
temperature effects in loose wool and fabric felting using Blankenburg's method *Sherman, Balasubramanian, McMahon*—**L** 534
Human Hair, see **Keratin**
Humidity, see **Moisture Phenomena**
Hydrocarbon Fibers
fibers from crystalline hydrocarbons *Bryant* 552

Information Storage and Retrieval
problem of textile information retrieval *Backer, Valko, Liang* 880
Insectproofing
with surface-active agents: anionic and anionic-cationic complexes *Freeland, Williams* 408
Instrumentation, *see* **Testing Apparatus**
Insulation
moisture transfer through impermeable insulations *Fonseca* 1072
Irradiation
delayed: with ionizing radiation *Walsh, Rutherford* 89
sonic and ultrasonic: airborne *Boucher, Staples* 635
sonic and ultrasonic: in liquid phase *Boucher, Staples* . . . 621

Jute, see **Bast Fibers**

Keratin (see also **Wool Fibers**)
cystine content of hair: fiber-to-fiber variation *Wolfram, Lennhoff*—**L** 145
infrared analysis of oxidized keratins *Robbins*—**L** 811
weathering in human hair *Robbins*—**L** 337
Kinetics
dyeing process of polyester fibers with dispersed dyes *Cegarra, Puente* 343
Knit Fabrics
dimensional stability of high-bulk acrylic knit fabrics *Hurley, Duby* 667
knitting performance of wool yarns: instrumentation studies *Knapton* 539
subjected to biaxial stress: an experimental study *McRory, McNamara*—**L** 908
tumble-drying process and acrylic knitted fabrics *Hurley* . . 746

Laundering
detergency experiments with particulate carbon soils *Grindstaff, Patterson, Billica* 564
effect of machine action on soil removal from wool during laundering *Brooks, McPhee* 371
interaction of anionic detergents with cellulose *Schott*—**L** . . 336
Lightfastness
lightfastness on wash-wear cotton *Frick, Kullman, Reinhardt, Reid* 894
Loft, see **Cotton, Chemically Treated; Fabric Geometry**

Mathematics—Models
probability model for random breakages *Lee* 860
scale for the variate on Weibull probability coordinates—a correction *Prevorsek, Lyons, Whitwell*—**L** 1087
Mechanical and Physical Properties
comparison of the tensile properties of kemp, mohair, and wool fibers *Hunter, Kruger* 220
comparison of Young's modulus of simple mohair and kemp fibers *King* 204
effects of combined gamma radiation and thermal exposure on some mechanical properties of three polyaromatic yarns *Opt, Ross* 1050
effect of different steaming treatments on the physical and mechanical properties of cotton fabrics, yarns, and fibers *Isings, Spit, Borsten*—**L** 1080
effects of various combinations of physical and chemical treatments: cotton yarns and bundles *Egle, Grant, Orr* 574
influence of binder on tensile properties on nonwovens *Hearle, Newton* 495
longitudinal mechanical properties of wool fibers and their relationship to the low-sulfur keratin fraction *Feughelman, Reis*—**L** 334
of weathered wool *Lee, Finkner* 211
of wool fibers in water at temperatures above 100°C *Mitchell, Feughelman* 660
mechanics of elastic performance of textile materials: stress-strain response of fabrics under two-dimensional loading *Freeston, Platt, Schoppee* 948
relation of intermicellar bonding and some mechanical properties of swollen cotton fibers *de Boer, Borsten* 390
relationship between some mechanical properties of single wool fibers and relative humidity *Feughelman, Robinson* 441
swollen and stretched cotton using different swelling agents *Joshi, Shelat, Radhakrishnan* 989
stiffness, an important factor in the abrasion performance of durable-press cottons *Harper, Blanchard, Lofton, Gautreaux* 233
Mercerization
circularity of cotton fibers and the effects of alkali concentration and tension on the changes brought about in it during mercerization *Oka, Prakash, Iyengar* 61
Moisture Phenomena
capillary sorption equilibria in fiber masses *Burgeni, Kapur* 356
effect of different steaming treatments on the physical and mechanical properties of cotton fabrics, yarns, and fibers *Isings, Spit, Borsten*—**L** 1078
effect of wet insulation in vapor barrier cold-weather boots *Breckenridge*—**L** 809
moisture transfer through impermeable insulations *Fonseca* . . 1070
relationship between some mechanical properties of single wool fibers and relative humidity *Feughelman, Robinson* 441
Mothproofing
***O,O*-diethyl Phosphorothioate with Phenylglyoxylonitrile** (Bay 7748) as a mothproofer of woolen fabrics *Bry, Lang* 915

Nonwoven Fabrics
derivation of generalized mechanics by the energy method *Hearle, Newton* 778
influence of binder on tensile properties of nonwovens *Newton, Hearle* 495
latex migration in fiber webs of nonwovens *Michie, Wilkinson* 461
Nuclear Magnetic Resonance
of dimethylolethyleneurea and of cotton reacted with dimethylolethyleneurea *Miles, Wall, McCall* 928
Nylon
nylon 6 and polyethyleneterephthalate bi-constituent system: morphological and physico-chemical characteristics *Papero, Kubu, Roldan* 823

Optical Properties
x-ray and optical orientation measurements on single cotton fibers *Duckett, Tripp* 517

Photochemical Effects (see also **Lightfastness**)
of cotton and chemically modified cotton: behavior during exposure to carbon arc and solar radiations *Daruwalla, D'Silva, Mehta* 147
of cotton and chemically modified cotton: photosensitization in presence of vat dyes *Daruwalla, D'Silva, Tandon* 160
Pilling
mathematical model of pilling mechanisms *Brand, Bohmfalk* 467
Polyethyleneterephthalate
and nylon 6 biconstituent system: morphological and physicochemical characteristics *Papero, Kubu, Roldan* 823
Polymers and Polymerization
wet-fixation DP process—polymer deposition *Hollies* . . . 277
Proofing, see **Crease Resistance and Creaseproofing, Flameproofing, Mothproofing, Shrinkproofing, Weatherproofing**
Pyrolysis
effects of bases on pyrolysis *Mack, Donaldson* 1063

Radiation, see **Irradiation; Photochemical Effects**
Resin Finishing
new catalysts for resin finishing *Burkitt, Ryan, Tattersal, Taylor* 311

Scouring
modification of process to produce wool resistant to yellowing *Hartley, Wallace*—**L** 1078
Shrinkage
shrinkage of plain knitted cotton fabric, based on the structural changes of the loop geometry due to yarn swelling and deswelling *Suh* 417
Shrinkproofing (see also, **Wool, Chemically Treated**)
continuous shrink-resist treatment of wool fabric with ozone *Thorsen, Kodani* 975
variability of wool tops in treatments with oxidative shrink-resist reagents *Anderson, McPhee* 582
Soiling, see **Laundering**
Sorption
capillary sorption equilibria in fiber masses *Burgeni, Kapur* 356
liquid rise between filaments in a V-configuration *Miller, Coe, Ramachandran* 919
Spectroscopy
direct pressing of fibers for infrared spectroscopic studies *Knight, Smoak, Porter, Kirkland* 924
effect of light on: dyed cottons *Baugh, Hinojosa, Mares, Hoffman, Arthur* 942
nmr spectra of dimethylolethyleneurea and of cotton reacted with dimethylolethyleneurea *Miles, Wall, McCall* 928
Spinning (see also **Textile Processing**)
quality of cotton yarns spun from fibers on cylinder and doffer of a revolving flat card *Ghosh, Bhaduri*—**L** 813
spinning of cotton yarns from cross-linked and untreated fibers on the woolen system and their performance in winter-weight fabrics *Valko, Angelo* 600
twist flow in ring spinning *Subramanian, Salhotra, Bhaduri* 195

Temperature Effects, see **Heat phenomena**
Testing Apparatus and Procedures (see also **Yarn Testing**)
accessibility of cellulose by the thallous ethylate method—application to the measurement of cellulose liquid interactions *Minkas, Robertson* 400
application of radioisotopes in a study of fiber breakage during recombing on the rectilinear system *Aldrich* 454
behavior in shear: heat-set nylon monofil fabrics *Spivak, Treloar* 1038
carpet performance: tetrapod walker test *Laughlin, Cusick* 608
combustibility tests on several flame-resistant fabrics in compressed air, oxygen-enriched air, and pure oxygen *Cook, Meierer, Shields* 591
evaluation of the saturation water content of wool by a calorimetric method *Haly*—**L** 228
measurement of regain of wool by electrical type moisture meters: dielectric properties of scoured wool *Algie* 224
methods of mounting single fibers for tensile loading *Way, Buvel, Lyons*—**L** 146
new dynamic method for measurement of fabric loss properties in shear *Spivak, Treloar* 1036
tensile behavior of wool fibers in liquid nitrogen *Feughelman, Robinson*—**L** 705
tensile testing of high-moduls low-elongation fibers *Vehmas*—**L** 437
Textile Processing
drafting force in the front zone of a double apron drafting system *Audivert, Villaronga, Coscollá* 1
effect of carding rate and cylinder speed on fiber hooks and spinning performance for an irrigated Acala cotton *Simpson, DeLuca, Fiori* 504
fiber engineering to meet end use requirements *Tippets* . . . 524
fiber surface properties in relation to linear assemblies during processing: general consideration and results on the worsted system *Scardino, Lyons* 874
fiber surface properties in relation to linear assemblies during processing: results on the cotton and woolen systems *Scardino, Lyons* 982
fiber surface properties in relation to linear assemblies during processing: effects of processing on surface and geometric properties of fibers *Scardino, Lyons* 1005
improved abrasion resistance through internal lubrication *Chipalkatti, Sattur, Husain, Bajaj* 242
mixed-stream spinning of bicomponent fibers *Fitzgerald, Knudsen* 441
modification of scouring process to produce wool resistant to yellowing *Hartley, Wallace*—**L** 1076
weaving processes—effects of non-preemptive priority and operator interference on output *Hines, Nass, Flege* 798
Thermal Effects, see **Heat phenomena**
Thermoplasticity
thermoplasticity and resilience through benzoylation and cross-linking *Willard, Schwenker* 316

Viscose Fibers
study of phenomena of diffusion and adsorption of direct dyes by the method of differential dyeing: statistical study on fiber populations *Iwanow, Schneider* 11

Wash-and-Wear (see also **Crease Resistance and Creaseproofing**)
cross-linked silicone films in textile finishing: wash-wear durable-press cottons at low levels of cellulose cross-linking *Welch, Bullock, Margavio* 324
reaction of a diisocyanate with cotton to produce wash-wear fabrics *Verburg, Snowden* 367
Washing, see **Laundering**
Wear
importance of stiffness in the abrasion performance of cottons *Harper, Blanchard, Lofton, Gautreaux* 233
Weathering
weathered wool *Lee, Finkner* 211
Weatherproofing
of cotton: improved by novel mineral dyeing process *Conner, Danna, Cooper, Reeves* 94
Wool (see also **Wool, Chemically Treated; Wool Fabric; Wool Fibers**)
Wool, Chemically Treated
action of periodic acid and its salts on wool: periodate consumption *Kantouch, Bendak* 772
chemical investigation of the sulfur-containing amino acids and sulfur content of persulfate-oxidized wool *Kantouch, Bendak* 483
dissolution and properties of reduced wool in dilute acid near room temperature *Ward*—**L** 1085
formation of various cross linkages in wool and their effect on the supercontraction properties of the fibers *Crewther, Dowling, Inglis, Maclaren* 736
insectproofing with surface-active agents: anionics and anionic-cationic complexes *Freeland, Williams* 408
modification by certain organic sorbates *Griffith, Haly* 183
reactive polymer finishes for wool: phase boundary limited cross-linking of polyesters and polyethers to yield polyurethanes *Whitfield, Remy, Pittman* 655
some chemical reactions involved in the alkaline yellowing of wool *Norton, Nicholls* 1031
some effects of peroxide oxidation *Inglis, Leaver*—**L** 995
treatment with polyolefins *Feldtman, McPhee, Pratt* 46
variability of wool tops in treatments with oxidative shrink-resist reagents *Anderson, McPhee* 582
yellowing and peroxide bleaching, repeated alternate *Holt, Inglis, Lennox* 490
Wool chemistry
"free" sulfur content of proteins *Earland, Raven*—**L** 1004
synthesis of lanthionine sulphone *Asquith, Dominguez*—**L** . . 229
synthesis of lanthionine sulphone *Earland*—**L** 908
Wool Fabric (see also **Mothproofing; Shrinkproofing; Wool, Chemically Treated**)
Wool Fibers
differential thermal analysis: phase-transition endotherm under various conditions *Haly, Snaith* 898
hydrothermal degradation: chemical changes associated with the treatment of wool keratin with water at 50–100° *Sweetman* 834
hydrothermal degradation: chemical changes associated with the treatment of wool keratin with water or steam at temperatures above 100° *Sweetman* 844
influence of tensides on the mechanical and absorption properties of wool fibers *Zahn, Stein, Blankenburg*—**L** 701
longitudinal mechanical properties: their relationship to the low-sulfur keratin fraction *Feughelman, Reis*—**L** . . . 334
measurement of regain of wool by electrical type capacity moisture meters: dielectric properties of scoured wool *Algie* 224
mechanical properties of wool fibers in water at temperatures above 100°C *Mitchell, Feughelman* 660
physical and chemical properties of Magra (Indian) wool *Blakey, Earland, Jalihal* 688
slow absorption of water after heat treatment *Haly*—**L** 913
tensile behavior of wool fibers in liquid nitrogen *Feughelman, Robinson*—**L** 705
weathered: some physical properties *Lee, Finkner* 211
Wrinkle Resistance, see **Crease Resistance and Creaseproofing**

x-Ray Diffraction
x-ray and optical orientation measurements on single cotton fibers *Ducket, Tripp* 517

Yarn Geometry
knitting performance of wool yarns: instrumentation studies *Knapton* 539

wave-propagation and dynamic modulus in continuous-filament: low initial yarn tension *Zorowski, Murayama* 852
Yarn Testing
effects of various combinations of physical and chemical treatments on the physical properties of cotton yarns and bundles *Egle, Grant, Orr* 574
prediction of cotton yarn strengths *Bogdan*—**L** 536

BOOKS REVIEWED AND NOTED

Applied Basic Textiles. George E. Linton. New York, Duell, Sloan and Pearce. 1966. xl + 472 pages. $7.95 439

ASTM Standards: Part 24, Textile Materials—Yarns, Fabrics, General Methods; Part 25, Textile Materials—Fibers, Zippers. American Society for Testing and Materials, 1916 Race St., Philadelphia, Pa. 10103. October, 1966. Part 24: 676 + xxii pages. $13.00 (non-members; $9.10 (members). Part 25: 628 + xxii pages. $12.00 (non-members); $8.40 (members). 439

Chemifesern nach dem Viskoseverfahren (3d Edition). Kurt Götze. Berlin/Heidelberg/New York, 1967. $62.00. Volume I, xxvii + pages 1–775; Volume 2, xi + pages 779–1282. 1087

Design Tables for Textile Fabrics: Tables of Solutions of Equations for Maximum Weavability Fabrics made from Single Fiber Species and Blends (Technical Report 67-20-CM). Louis I. Weiner. United States Army Natick Laboratories, Natick, Mass. 01760. August 1966. 330 + vi pages. Available from Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. 439

Effect of Weathering on Cotton Fabrics. Mary Ann Morris. University of California Experiment Station Bulletin 823. June 1966. 29 pages. 439

Extent and Cause of Deterioration of Nylon Mountain Climbing Rope. Technical Report 66-24-CM. Louis I. Weiner and Leo J. Sheehan. A report of the United States Army, Natick Laboratories, Natick, Mass. 01760, March 1966. A reproduced typewritten report available from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151. 232

Färberei- und textilchemische Untersuchungen. Andreas Agster. Berlin/Heidelberg/New York, Springer Verlag. 1967. viii + 484 pages. $14.50. 1087

Fibre Sintetice, Chimi Si Technologie. L. Alexandru and S. Bosica. Editura Technica, Bucuresti, 1966. 498 pages. 439

Grosses Textil-Lexikon, Vol. 1 (A–K); Vol. 2 (L–Z). Koch-Satlon. Deutsche Verlags-Anstalt Stuttgart. 1966. Vol. 1, 755 + xii pages; vol. 2, 680 pages. Each volume DM210. 439

Introduction to Fibres and Fabrics, Their Manufacture and Properties. London, Heywood Books; New York, American Elsevier Publishing Company, Inc. 1966. 212 pages $7.50. 439

Introductory Textile Science. Marjorie L. Joseph. New York, Holt, Rinehart and Winston, Inc. 1966. 450 + iii pages. $8.50. 439

Industrial Fibres. Commonwealth Economic Committee. London, Her Majesty's Stationery Office. 1966. 244 + iv pages. $2.00. 439

Man-Made Fiber Processing (Chemical Process Monograph No. 25). Arthur Alexander. Noyes Development Corporation, 118 Mill Road, Park Ridge, N. J. 07656. 1966. 195 + iii pages. $24.00. 439

Manual of Cotton Spinning; Volume 3—Carding. Edited by F. Charnley and P. W. Harrison. Butterworth, Inc., 7300 Pearl Street, Washington, D. C. (jointly with The Textile Institute). 260 plus xi pages. 1965. $12.00. 232

Methods of Wood Chemistry, Volume I and II. B. L. Browning. New York, John Wiley & Sons, Inc. (Interscience Division). Volume I, xxii + 384 pages, $15.00. Volume II, xxi + 882 pages. $18.75. 1088

Natural and Man-made Textile Fibers. George E. Linton. New York, Duell, Sloan and Pearce. 1966. xxiii + 420 pages. $7.95. 439

Polyamide Resins, 2nd Edition. Don E. Floyd. Reinhold Publishing Corporation, New York. 227 plus ix pages. 1966. $10.50. 232

Practical Hints on Absorption Spectrometry, (200–800 mu). J. R. Edisbury. London, Hilger and Wates, Ltd. 1966. 266 + xii pages 50s. 439

Reflectance Spectroscopy. Wesley W. Wendlandt and Harry G. Hecht. Interscience Publishers (a division of John Wiley), New York, London, and Sydney. 298 plus viii pages. 1966. 232

Review of Textile Progress, Volume 16. Published jointly by The Textile Institute, The Society of Dyers & Colourists, and Butterworth's. Butterworth, Inc., 7300 Pearl Street, Washington, D. C. 458 plus ix pages. 1965. $16.95. . . . 232

Synthetic Fibers from Petroleum. Marshall Sittig. Park Ridge, N. J., Noyes Development Corporation. 1967. 275 pages. $35.00. 1088

Technical and Trade Dictionary of Textile Terms (Second revised and enlarged edition). Magda Polanyi. London, New York, etc., Pergamon Press. 1967. viii + 637 pages. $30.00. 1087

Technical Dictionary in Four Languages: Textile Finishing. Ruth Körner. Long Island City, N. Y., Pergamon Press, Inc. 1022 pages. $30.00. 1087

Textile Auxiliaries. J. W. Batty. New York, Pergamon Press, Inc. 1967. ix + 57 pages. $3.50 (hard cover); $2 (flexi-cover) 1088

Textile Chemistry, Volume II: Impurities in Fibres; Purification of Fibres. R. H. Peters. Amsterdam/London/New York, Elsevier Publishing Company. 1967. xiii + 374 pages. $23.00. 1087

Textile Finishing. 3rd Edition. A. J. Hall. London, Heywood Books; New York, American Elsevier Publishing Company, Inc. 1966. 453 pages. $20.00. 439

Textile Laboratory Manual. Volume 2: 3rd Edition, Resins and Finishes. W. Garner. London, Heywood Books; New York, American Elsevier Publishing Company, Inc. 1966. 124 pages. $7.50. 439

Textile Laboratory Manual, Volume 3: Detergents (3rd Edition). W. Garner. New York, American Elsevier Publishing Company, Inc. 1967. 210 pages. $9.00. 1087

Textile Laboratory Manual, Volume 4: Dyestuffs. (3rd Edition). W. Garner. New York, American Elsevier Publishing Company, Inc. 1967. 165 pages. $7.50. 1088

Textile Laboratory Manual, Vol. 5: Fibres. W. Garner. New York, American Elsevier Publishing Company, Inc. 1967. 265 pages. $9.00. 1088

Textile Laboratory Manual, Vol. 6: Additional Methods. W. Garner. New York, American Elsevier Publishing Company, Inc. 1967. 233 pages. $9.50. 1088

Textiles, 1960–1975. Economic and Scientific Research Foundation, New Delhi, India. 1967. 111 pages. Rs 10/–. . . . 1088

Textured and Novelty Yarn Processes. Mark G. Harrison. Park Ridge, N. J., Noyes Development Corporation. 1967. 316 pages. $35.00. 1088

The American Cotton Handbook, 3rd Edition. Edited by D. S. Hamby. Interscience Publishers (a division of John Wiley), New York, London, and Sydney. Volume I: 518 plus xiv pages; 1965. Volume II: 722 plus xii pages; 1966. 232

Thermoanalysis of Fibers and Fiber-forming Polymers. Robert F. Schwenker, Jr., Editor. New York, London, Sydney. Interscience Publishers. 1966. 175 pages. $7.00. . . 439

The Traditional Crafts of Persia. Hans E. Wulff. Cambridge, Mass., The M.I.T. Press. 1966. xxiv + 405 pages. $25.00. 1088